**Revision Diagrams**

**Draw, label and annotate the diagrams from memory**

**Check with your student booklet/text book if you’ve missed anything**

**Repeat until you can remember all the information**

**1 Biological molecules:**

α-glucose and β-glucose

condensation reaction of 2 x α-glucose to form maltose

triglyceride and phospholipid

amino acid

condensation of 2 amino acids to form a dipeptide

enzyme graphs:

rate and temperature

rate and pH

rate and enzyme concentration

rate and substrate concentration

rate and substrate concentration with no inhibitor

competitive inhibitor and non-competitive inhibitor

nucleotide

DNA Replication

ATP

**2 Cells**

Eukaryotic cell

Prokaryotic cell

Virus

Chloroplast

Mitochondria

Mitosis

phospholipid bilayer with channel and carrier proteins

Epithelial cell showing co-transport

Phagocytosis

Cell-mediated immunity

Humoral response

Antibody

**3 Organisms exchange substances with their environment**

Countercurrent flow system in fish

Cross-section leaf

Human gas exchange system

Digestive system

Absorption of triglycerides

Graph effects of CO2 on oxygen dissociation curves

Structure of heart

Artery, vein and capillary

Formation of tissue fluid

**4 DNA, genes and protein synthesis**

Chromosome structure

Meiosis

Graphs to show direction and stabilising selection

Transcription

Translation

**5 Energy transfer in and between organisms**

Light dependent reactions

Calvin cycle

Experiment set up for measuring rate of photosynthesis

Glycolysis

Link reaction

Krebs cycle

Oxidative phosphorylation

Experimental set up for measuring rate of aerobic respiration in yeast

Nitrogen cycle

Phosphorus cycle

**6 Organisms respond to changes in their environment**

Phototropic response in shoots and roots

Gravitropic response in shoots and roots

Pacinian corpuscle

Control of heart rate

Motor neurone

Neurone membrane showing resting potential

Animated graph of action potential

Cholinergic synsapse

Sarcomere

Sliding filament mechanism

Negative feedback loops – temperature, glucoregulation, osmoregulation

Second messenger model

Kidney and nephron

**7 Genetics, populations and ecosystems**

Monohybrid cross

Dihybrid cross

Sex linked cross

Autosomal linkage cross

Directional, stabilising and disruptive selection graphs

Allopatric and sympatric speciation

Predator prey graph

**8 Control of gene expression**

Transcription factors regulating transcription

Oestrogen regulating transcription

RNA interference and siRNA

Restriction endonucleases – sticky ends and blunt ends

Inserting genes into plasmid vectore

Replica plating

Summarising the process to locate a particular alleles in a gene

Electrophoresis equipment

Genetic fingerprinting